

REMARKS

This amendment is in response to the Office Action mailed January 9, 2009 ("Office Action"). The Office Action asserts that the Office Action Response filed on October 27, 2008 ("Office Action Response") is not fully responsive to the prior Office Action of July 31, 2008 because the Examiner is uncertain as to whether or not a traverse is intended. Additionally, the Office Action asserts that the Remarks of the Office Action Response fail to present arguments pointing out the specific distinctions believed to render new claim 21 patentable over the applied references. The Office Action also asserts that there is no indication in the Office Action Response as to whether or not new claim 21 is readable upon the elected species.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-3, 8, and 13-16, drawn to a tolerance ring.
- II. Claims 4 and 5, drawn to an apparatus.
- III. Claims 6, 7, 9-12, and 17-20, drawn to a method of assembling an apparatus.

Provisional election of Group I, claims 1-3, 8, and 13-16 was made with oral traverse during a telephone conversation on July 17, 2008 between the Examiner and Applicant's representative, John W. Branch. The Applicants herein elect Group I, claims 1-3, 8, and 13-16 without traverse.

Claim 21

Claim 21 is directed to a tolerance ring. Claim 21 is readable upon the elected species, Group I, which is likewise drawn to a tolerance ring. Claim 21 is patentable over both Cramer and Blaurock for at least the reasons discussed below.

Claim 21 recites a tolerance ring that includes a plurality of radial protrusions formed in an annular band, each protrusion extending radially outwards between a pair of unformed annular

portions. Cramer does not teach protrusions extending radially outwards. Cramer discloses a tolerance ring with a plurality of radially inwardly projecting corrugations (Cramer, col. 4 lines 47-48). There is, additionally, no teaching or suggestion in Cramer of employing outwardly facing protrusions. For at least this reason, claim 21 is patentable over Cramer.

Claim 21 additionally recites a guide surface that is contiguous with and flares outwardly from an innermost surface. Cramer does not teach that the guide surface flares outwardly in the same radial direction as the protrusions. As discussed above, Cramer discloses a tolerance ring with a plurality of radially inwardly projecting corrugations (Cramer, col. 4 lines 47-48). Cramer also discloses a plurality of radially outwardly projecting tabs formed along both axial ends of the ring (Cramer, col. 4, lines 61-64). Thus, the tabs disclosed by Cramer project in a radial direction that is opposite to the projection of the corrugations. Accordingly, Cramer does not disclose guide surface flares outwardly in the same radial direction as the protrusions, as recited in claim 21. For at least this additional reason, claim 21 is patentable over Cramer.

Moreover, the corrugations and tabs shown in Figure 7 of Cramer cannot be switched to project in the same radial direction. The tabs shown in Figure 7 of Cramer are designed to axially retain the tolerance ring (Cramer, Abstract). In conventional tolerance ring assemblies, the sliding contact between components occurs at the interface between the projections on the tolerance ring and whichever component the projections are to contact. In Figure 7 of Cramer, the sliding contact is between the projections and the shaft. Thus, for the embodiment shown in Figure 7 of Cramer, the tolerance ring is first mounted to the outer member and then the inner member is inserted. If the projections shown in Figure 7 of Cramer were moved to the outer surface of the tolerance ring, the tolerance ring would first need to be mounted to the inner member and then the inner member and the tolerance ring would be inserted into the outer member. The sliding contact would then be between the projections and the inside surface of the outer member. In that case, axial retention would be needed between the inner member and the tolerance ring. Such axial retention is provided by radially inwardly projecting tabs. Thus, in order for the device taught in Figure 7 of Cramer to operate properly, the tabs and the projections need to project in opposite radial directions. Thus, the

tabs do not project in the same outward radial direction, as recited in claim 21. For at least this additional reason, claim 21 is patentable over Cramer.

Claim 21 is also patentable over Blaurock. As mentioned above, claim 21 recites a tolerance ring that includes a plurality of radial protrusions formed in an annular band, each protrusion extending radially outwards between a pair of unformed annular portions. Blaurock does not teach each of the protrusions extending radially outward. Blaurock discloses an annular spacer element having projections on both major surfaces (Blaurock, Abstract; and col. 1 lines 62-63). Therefore, the projections disclosed by Blaurock extend both radially inward and radially outward. Thus, the projections disclosed by Blaurock do not each extend radially outward, as recited in claim 21. For at least this reason, claim 21 is patentable over Blaurock.

Claim 21 additionally recites a guide surface that is contiguous with and flares outwardly from unformed annular portions defining an innermost surface. Blaurock does not teach a guide surface that is contiguous with and flares outwardly from unformed annular portions. Blaurock discloses, and clearly illustrates in Figure 7, a ring 124 with an edge strip 140 tapering from a projection 134 that extends radially inwards (Blaurock, col. 4 lines 13-18; and Figure 7). Thus, Blaurock does not disclose a guide surface that flares outwardly from unformed annular portions, as recited in claim 21. For at least this additional reason, claim 21 is patentable over Blaurock.

Even if, hypothetically, one of skill in the art were able to modify the ring 124 disclosed by Blaurock such that portions of the edge strip 140 taper, at least in part, from unformed portions of the ring 124 between the projections 134 and recesses 136, the unformed portions of the ring 124 would still not extend from unformed annular portions, as recited in claim 21. For at least this additional reason, claim 21 is patentable over Blaurock.

Accordingly, Cramer and Blaurock, alone or in combination, do not teach or suggest all of the elements of claim 21. For at least these additional reasons, claim 21 is patentable over the cited references. The Applicants respectfully request allowance of these claims.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue. If the Examiner has any questions or concerns, the Applicant encourages the Examiner to contact the Applicant's representative, Patrick Turner, by telephone to discuss the matter.

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Respectfully submitted,

By 

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